

**John A. Volpe National Transportation System Center
Environmental Engineering Division, RTV-4E**

PROJECT MANAGEMENT PLAN

**Libby Asbestos Project
EPA Region 8**



Interagency Agreement No. DW6995388401

PPA/RA#: VX58

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1 OVERVIEW

1.1 Project Summary

1.1.1 Background

The John A. Volpe National Transportation Systems Center (Volpe Center) provides project management, data management, environmental engineering, and remediation support to Region 8 of the U.S. Environmental Protection Agency (EPA) by Interagency Agreement (IAG) DW6995388401. The Volpe Center provides this support under the terms of the 1996 Memorandum of Understanding (MOU) between the Volpe Center and the U.S. EPA. Under the MOU, the Volpe Center supports the EPA's Libby Asbestos Project through which investigative and cleanup actions are taking place under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund. Volpe Center support under the current IAG includes engineering, acquisition, data management, and project management.

The Libby Asbestos Project is EPA's response to tremolite asbestos contamination of public and private properties in and around Libby, MT. Tremolite is a form of asbestos fiber that causes virulent lung disease. The contamination is a result of historic vermiculite mining in Libby, Montana by W.R. Grace & Co. that ceased in 1990. By 1998 over 200 deaths of Libby residents were attributed to past mining practices. In addition, it became clear that thousands of people showed the negative pulmonary affects of exposure to Libby asbestos, and that their conditions would likely worsen. EPA responded to this crisis in to order to mitigate further threats to human health.

1.1.2 Customer's Project Requirements

EPA has been working in Libby since 1999 when an Emergency Response Team was sent to investigate local concern and news articles about the presence of asbestos-contaminated vermiculite. Since that time, EPA has been working closely with the community to clean up contamination and reduce risks to human health.

Since November, 1999, EPA has cleaned up the major source areas of contamination around town. EPA is now cleaning up smaller sources found in a variety of places such as around homes and businesses. EPA conducts stringent clearance sampling after each cleanup and has begun some targeted sampling to measure the effectiveness of cleanup several months later. EPA is also working on long-term plans to ensure that the cleanup remains protective and human health risks continue to be reduced over time. EPA's ongoing cleanup efforts continue to make Libby a safer place to live, work, and visit.

The Libby Asbestos site was listed on the National Priorities List (NPL) as a Superfund site on October, 2002. The site has been partitioned into separately-managed Operable Units (OUs) as follows:

- OU 1: Export Plant
- OU 2: Screening Plant
- OU 3: Mine
- OU 4: Libby Residential/Commercial

- OU 5: Stimson Lumber
- OU 6: Burlington Northern Santa Fe
- OU 7: City of Troy

To-date EPA has used a “worst-first” approach for conducting asbestos removals. In support of EPA, the Volpe Center has conducted environmental assessments of over 3,500 sites in Libby, which has resulted in 1,400 properties being designated as requiring asbestos removal and remediation. In addition, in the neighboring City of Troy, the Troy Asbestos Property Evaluation (TAPE) has identified another 300 properties that need attention. At the conclusion of the 2006 construction season 735 properties have been cleaned up, leaving 965 sites in Libby and Troy that require cleanup.

Since 1999 significant progress has been achieved, and EPA has set ambitious goals for its FY07 work plan. EPA plans to continue its residential and commercial asbestos removals while at the same time embarking on an efficacy evaluation of properties that were cleaned in prior years. In addition, EPA will continue progress toward developing remedial investigation (RI), feasibility study (FS), and Record of Decision (ROD) documentation for each of the seven OUs, which are needed to demonstrate progress in the Superfund program. Finally, EPA will play a key role in supporting the Department of Justice (DOJ) in its criminal prosecution of W. R. Grace executives.

Regarding the DOJ support EPA relies on the Volpe Center’s cost accounting and document control processes, to ensure that the Government’s interest continues to be protected in litigation actions. In the largest judgment after trial in the history of the federal Superfund law, District Court of Montana ordered W.R. Grace & Co. to pay \$54.5 million to reimburse the federal government for the costs of investigation and cleanup of asbestos contamination in Libby. Approximately half of that settlement was for costs incurred by the Volpe Center on behalf of EPA that were so thoroughly documented W.R. Grace conceded to them without challenge, thereby greatly simplifying the work of the Department of Justice at trial. During FY07 additional litigation is scheduled to prosecute alleged criminal activities of W.R. Grace executives.

1.1.3 Work Acceptance Background of the Libby Asbestos Project

In 1994, the John A. Volpe National Transportation Systems Center (Volpe Center) requested and received from the Research and Special Programs Administration (RSPA), [now known as The Research and Innovative Technology Administration (RITA)] Headquarters approval to expand our environmental capabilities to provide life-cycle support including remediation. In 1996, the Volpe Center and the EPA signed an MOU to enter into a partnership arrangement to share complementary resources, information, and expertise. IAG DW6995388401 is consistent with these precedents, stating:

The Volpe Center technical support includes:

- a. Site assessment, engineering and design.
- b. Conception, development, solicitation, award, management, and administration of remediation, security, landscaping, waste management and other contracts.

- c. Management and analysis of a database tracking over 80,000 samples for asbestos in soil, air, dust, bulk, and water, including Geographical Information System (GIS), chain of custody, and site specific data.
- d. Community public relations support including establishment and operation of a community “store front” and information center, organization and conduct of monthly Community Action Group meetings, and coordination with residents needing temporary relocation assistance.
- e. On-site Federal presence for EPA Region 8.

Pursuant to the Interagency Agreement, RITA has authorized the Volpe Center to support the project through 2008, with a funding ceiling of \$97.2M. Recent projections indicate that EPA is extending to estimated completion date to 2011, as such, the Volpe Center will submit a request to RITA asking to extend our involvement.

1.1.4 IAG Terms and Conditions

Terms and Conditions for IAG DW6995388401, described below, ensure that the EPA, as manager of the Hazardous Substances Superfund, has current information on CERCLA response actions and related obligations of CERCLA funds.

The terms and conditions address:

- a. Cost documentation requirements
 - b. Reporting requirements
 - c. Cost recovery
 - d. Record retention requirements
 - e. Audits
- **Cost Documentation Requirements:** Cost documentation is required to support cost recovery and audits, as outlined below. Volpe Center’s accounting system reports must be supported by site- and activity-specific cost documentation. Volpe Center will organize and retain in site file(s) documentation of costs by site and activity (i.e. vouchers billing statements, evidence of payment, and audit reports for direct and indirect costs.
 - **Reporting Requirements:** Volpe Center will provide the following reports (see Section 9.2 – External Reporting):
 - a. Monthly progress reports
 - b. Quarterly OPAC transactions
 - c. Annual reports regarding small and disadvantaged business utilization, specifically, Minority Business Enterprise (MBE) and Woman Business Enterprise (WBE) utilization
 - d. Annual and final inventories of all property acquired by or furnished to Volpe Center with EPA funds
 - **Cost Recovery:** EPA is authorized by CERCLA to recover from responsible parties all government costs incurred during a response action. To support CERCLA cost recovery for the Libby Asbestos Project, the Terms and Conditions for the IAG identify Volpe Center’s documentation requirements for direct and

indirect costs. Volpe Center will support requests for cost recovery documentation by EPA or the Department of Justice (DOJ). Fewer than thirty days may be allowed for response to cost recovery documentation requests.

- Record Retention Requirements: Volpe Center and its contractors will retain documents described in the Terms and Conditions for a minimum of ten years after transmission of the final OPAC billing for a site.
- Audits: Volpe Center may be required to perform annual audits.

1.2 Libby Asbestos Project Scope Statement

The scope of the Libby Asbestos Project is constrained by the Interagency Agreement (IAG DW6995388401) between EPA and the Volpe Center. The four IAG tasks are listed as follows:

Task 1 – Perform cleanup and related actions

Task 2 – Provide support of cleanup operations

Task 3 – Provide site-specific assistance to support investigation and study

Task 4 – Provide other assistance to support basic operations at the Libby Asbestos Site.

Project scope is further defined in Work Authorization Forms (WAFs) that provide project funding.

1.2.1 Scope of IAG Tasks

Volpe Center EPA IAG No.DW6995388401 specifies four tasks in the table below:

Figure 1: Scope of Volpe Center – EPA IAG No.DW6995388401

Task 1 Perform cleanup and related actions	<p>Perform cleanup and related actions. Cleanup may occur using both removal and remedial authority. This task will include, but may not be limited to:</p> <ul style="list-style-type: none"> ▪ Acquisition and management of cleanup contract(s), as Volpe determines necessary. Acquisition includes scientific and engineering support in development of detailed statements of work, cost estimates and schedules, as well as other acquisition activities. Management includes developing administrative procedures for implementation of contracts in the field in Libby, Montana. ▪ Contracting and management of related cleanup efforts, such as disposal, landscaping, backfill, and security. ▪ Temporary or permanent relocation and associated tasks for residents affected by cleanup activities.
Task 2 Provide support of cleanup operations	<p>Provide support for cleanup operations in cooperation with EPA and EPA contractors.</p> <ul style="list-style-type: none"> ▪ Design work including engineering, inspections, sampling, and surveys of individual properties to support contracting and property specific remediation plans and agreements. ▪ Oversight of cleanup contracts. ▪ Analytical support. ▪ Community involvement support.
Task 3	Provide site-specific technical, scientific, and engineering assistance to EPA to

Provide site-specific assistance to support investigation and study	<p>support the Remedial Investigation/Feasibility Study or investigation work. This task will include, but may not be limited to:</p> <ul style="list-style-type: none"> ▪ Analytical support including sample preparation. ▪ Fieldwork or sampling. ▪ Support of Performance Evaluation (PE) Study. ▪ Support of risk assessment programs and exposure studies to help determine site-specific cleanup goals.
Task 4 Provide other assistance to support basic operations at the Libby Asbestos Site.	<p>Provide other technical, scientific, and engineering support to EPA, which supports basic operations at the Libby Asbestos Site. This task will include, but may not be limited to:</p> <ul style="list-style-type: none"> ▪ Development, operation and maintenance of the Libby analytical database. ▪ Development, operation, and maintenance of a Geographic Information System. ▪ Responding to inquiries and information requests, such as for site-specific litigation.

1.3 Project Assumptions

- The MOU between Volpe Center and the U.S. EPA will remain in force.
- Urgency of asbestos remediation at Libby, MT will continue unabated.
- EPA will continue to be successful in advocating and allocating priority funding for the Libby Asbestos project.
- DOT will continue to support the Volpe Center's involvement in the project to completion.
- Requirements of other Federal departments and Federal funding limitations will not reduce the project's funding precedence.
- Environmental engineering requirements of the DOT that may emerge will not preclude continuation of adequate Volpe Center support to the project through FY 11.

1.4 Project Constraints

- Adequacy of Government-managed activities. Increases to operational scale and cost effectiveness are anticipated for residential remediation under new fixed-price competitive contracting. Timely planning and execution of Government-managed engineering, design, oversight, laboratory analysis, security and logistics for residential remediation will support, not hinder, these increases.
- Continuity of effective leadership. Effective project leadership is a key component of project success. Changes in leadership on-site and at the Volpe Center may be anticipated for the continued professional growth of incumbents and successors. Timely planning and execution of changes in leadership staffing will support, not hinder, continued project accomplishment.
- Available budgets must be effectively prioritized. The EPA is expected to maximize the impacts of its limited budget. EPA is expected to provide a safe living and working environment for the residents of and visitors to Libby. It must

- provide a balance between determining the safety of the community and making progress removing asbestos from contaminated properties.
- Current asbestos studies do not adequately address the Libby amphibole. The majority of asbestos studies used for human health risk assessment do not relate to the unique structure of the Libby amphibole. Asbestos removal activities must be complemented with investigative studies that further examine the toxicity of the Libby amphibole.

1.5 Project Risks

The Libby Asbestos Project, devoted to safely identifying and neutralizing threats to public health for the EPA, is an urgent undertaking. Comprising science, engineering, construction, data management, and logistics, the project is dynamic and complex. Employing numerous specialists, both Federal and commercial, collaborating with municipal, state and Federal agencies, and directed toward the wellbeing of thousands of Libby-area residents, the project has significant breadth and scale. Planning, budgeting, scheduling, tracking, and controlling are accomplished with attention to risks inherent in:

- Fostering and maintaining community relations in an area having experienced widespread tremolite asbestos contamination and resultant disease
- Contracting in and for an area having chronic high unemployment
- Protecting health and safety of community members and project workers throughout remediation activities
- Planning, directing, coordinating, and controlling the activities of numerous mutually-supporting remediation entities
- Providing emergency support when required by EPA
- Maintaining the quality of remediation activities as remediation rates increase to achieve EPA objectives.
- Accommodating seasonal and unseasonable weather that constrains remediation activities and progress.
- Accommodating changes to requirements and budgets.

1.6 Evolution of the Plan

This plan is in compliance with the Volpe Center standard for project management plans. As the reader will note in Section 5, Work Planning, Work Authorization Forms (WAFs) are central to work definition, budgeting, and scheduling; accordingly, WAFs will be discussed in lieu of “work breakdown structure.” This plan and associated requirements, budgets, and schedules will be reviewed monthly in conjunction with Monthly Team meetings and will be updated quarterly to reflect changes. Changes to the plan are proposed by the Volpe Center Project Manager and approved by the Chief, Environmental Engineering.

2 REFERENCES

- Memorandum of Understanding (MOU) between the Environmental Protection Agency (EPA) and the Department of Transportation covering RSPA/Volpe National Transportation Systems Center, July 1996, w/attachments including Guidelines for Work
- Interagency Agreement (IAG) DW-69-95388401 w/Terms and Conditions and Statement of Work (SOW)
- EPA Superfund Financial Management and Recordkeeping, Guidance for Federal Agencies, EPA/220/M-89/001, January 1989

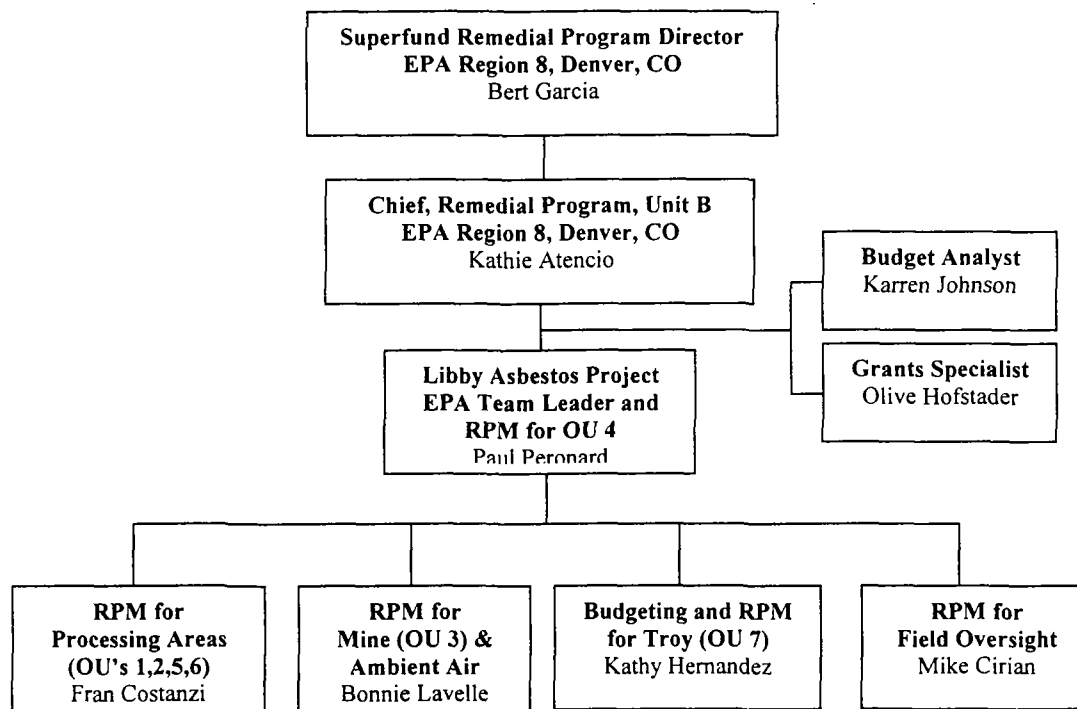
3 DEFINITIONS

All acronyms and initialisms are defined in the body of the plan. No unusual technical terms are employed.

4 PROJECT ORGANIZATION

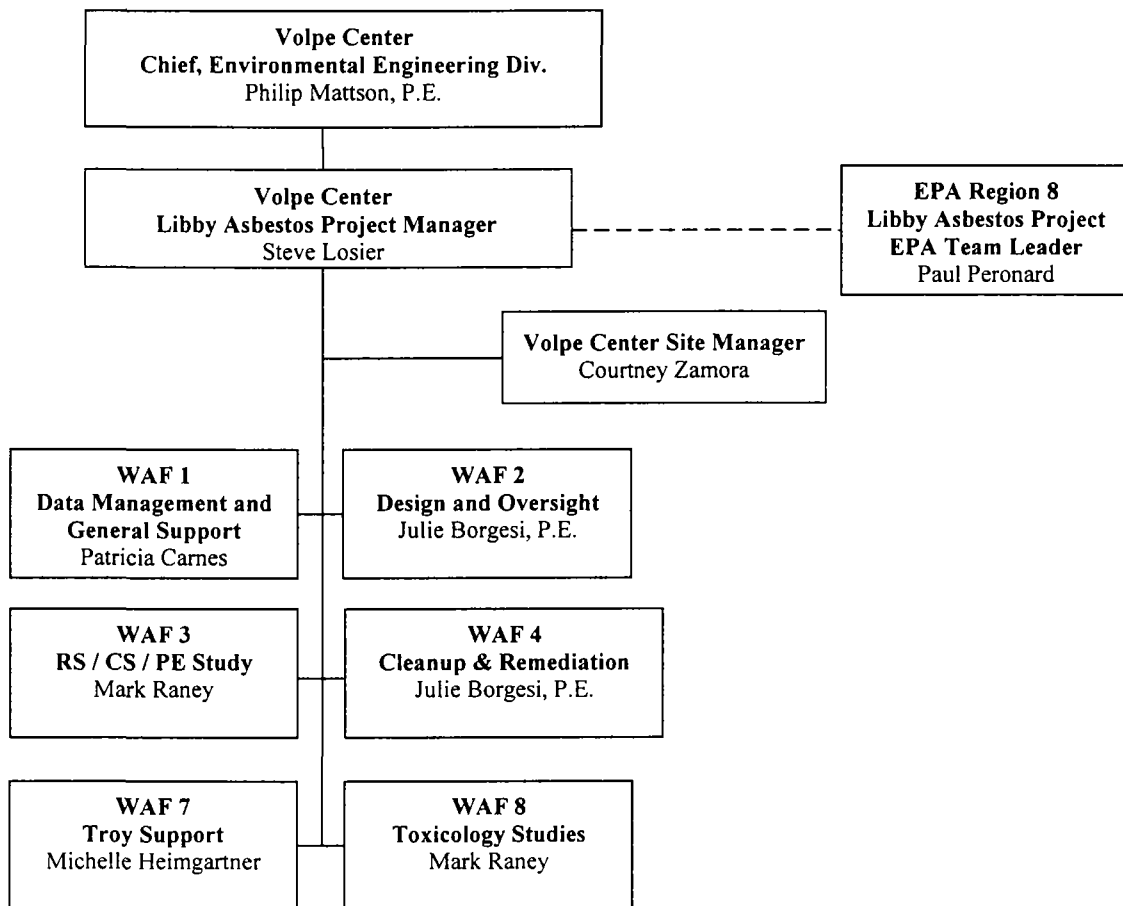
4.1 External Stakeholders

Figure 2: EPA Stakeholders



4.2 Volpe Center – EPA Project Interface

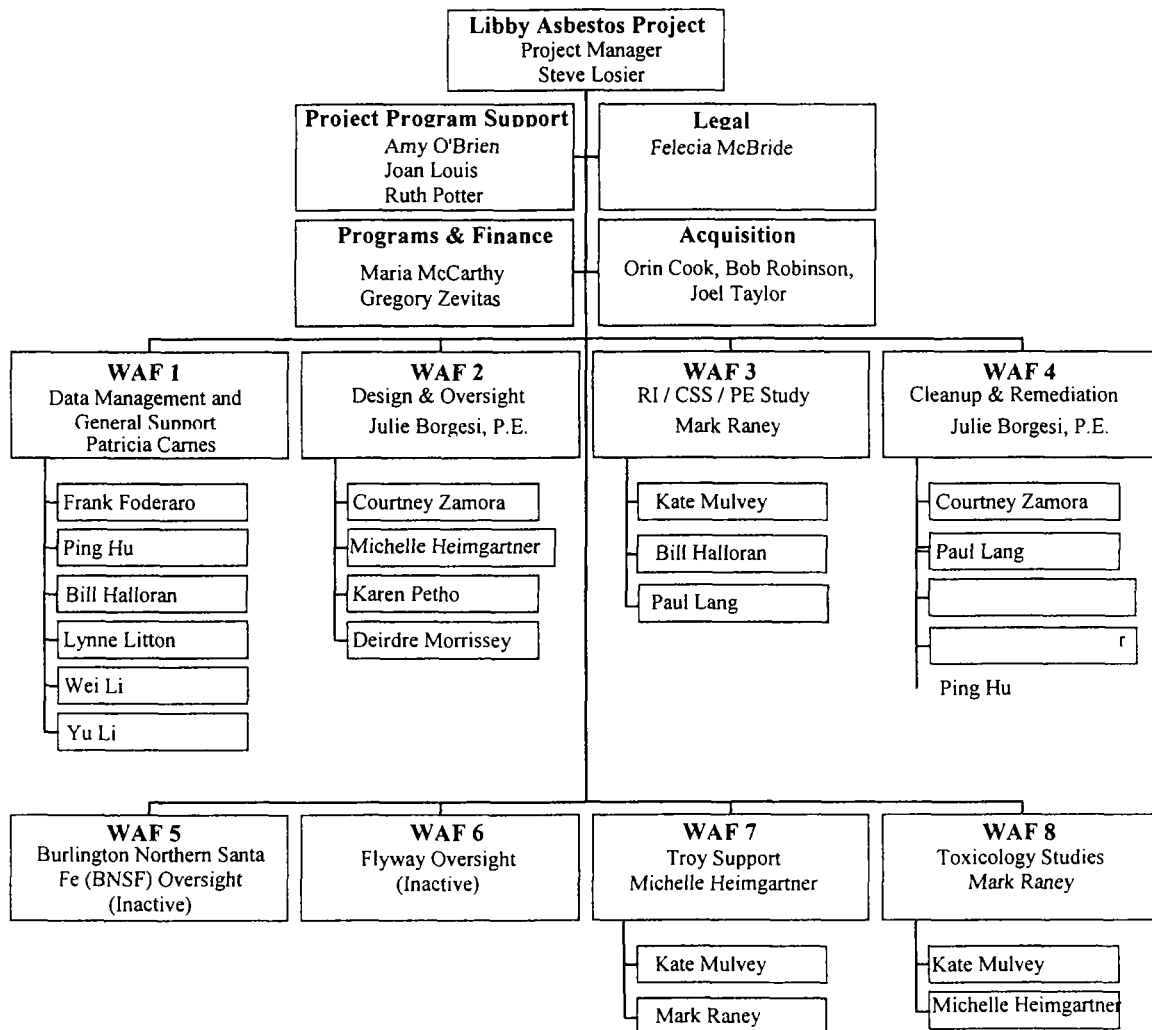
Figure 3: Volpe Center–EPA Project Interface



4.3 Libby Asbestos Project Team

The Libby Asbestos Project team is comprised of Volpe Center environmental engineers, one of whom serves as on-site manager in Libby, scientists, the project financial analyst, and information technology, acquisition, documentation accounting, and legal specialists.

Figure 4: Libby Asbestos Project Team



4.4 Libby Asbestos Project Roles and Responsibilities

Figure 5: Libby Asbestos Project Roles and Responsibilities

Name	Project Title	Project Responsibilities
<u>Environmental Engineering:</u>		
Steve Losier	Project Manager	Project Manager for Libby Asbestos Project
Julie Borgesi, PE	Task Manager	Task lead for design activities and technical lead on acquisitions. Key person in developing project budgets.
Courtney Zamora	Site Manager	Site Manager in Libby. Oversees all Volpe Center contract activities in Libby.
Michelle Heimgartner	Environmental Engineer	Manages residential relocations, cleanup cost estimating, cleanup design QC and cost/progress QC.
Bill Halloran	Program Analyst	Develops contractor acquisition plans and participates in source selection panels
Ping Hu	Program Analyst	Coordinates program records retention, contractor funding, and invoice reconciliation
Paul Lang	Analyst	Conducts various scientific and analytical tasks.
Deirdre Morrissey	Environmental Engineer	Coordinates contract acquisition activities and performs quality assurance of engineering designs
Kate Mulvey	Environmental Specialist	Performs Remedial Investigations and Risk Assessments
Karen Petho	Environmental Engineer	Coordinates contract acquisition activities and performs quality assurance of engineering designs
Mark Raney	Scientist	Coordinates Sampling and Analysis Plans, analytical activities, and risk assessments
Philip Mattson, PE	Division Chief	Overall Program Manager for IAGs in the Division.
<u>Data Management and General Support:</u>		
Patricia Carnes	Task Manager	Task lead for database activities. Develops requirements for information management upgrades and supervises development activities
Frank Foderaro	Data Manager	Coordinates activities of the data entry

		staff and ensures data quality objectives are met.
Wei Li	Data Entry	Enters and validates data. Maintains electronic and hardcopy inventory of all samples and analytical reports.
Yu Li	Data Entry	Enters and validates data. Maintains electronic and hardcopy inventory of all samples and analytical reports.
Lynne Litton	Systems Engineer	Designs, develops, and tests applications for uploading FSDS Preload and HandHeld (HH) data into the Libby2 database. Modifies HH and Preload applications to address new data or QC requirements.
<u>Acquisition:</u>		
Orin Cook	Chief, Acquisition Mgmt. Div.	Overall Acquisition Strategy & Implementation
Robert Robinson	Contracting Officer	Lead Contracting Officer
Joel Taylor	Contract Specialist	Support Contracting Specialist
<u>Program Support:</u>		
Felecia McBride	Attorney	Conducts legal review of acquisition documents
Gregory Zevitas	Financial payment and reporting	IAG cost documentation and reporting requirements (see Section 1.0)
Amy O'Brien	Division Secretary	Performs administrative functions and facilitates the processing of IAG amendments and work acceptance memos
Joan Louis	Financial Analyst	Assists with the preparation of budgets & progress reports.
Ruth Potter	Documentation Specialist	Assists with Documentation Management

4.5 Project Staffing

Figure 6: Project Staffing

Volpe Engineering		WAF 1	WAF 2	WAF 3	WAF 4	WAF 5	WAF 7	WAF 8
Budgeted Labor Years	Federal Staff Member	Data Mgt & General Support	Design & Oversight	RI / CSS / PE Study	Cleanup & Remediation	BNSF Oversight	Troy Oversight	Mine Oversight
0.72	Borgesi, Julie		0.36		0.36			
0.50	Carnes, Pat	0.50						
0.50	Foderaro, Frank	0.50						
0.26	Halloran, Bill		0.13		0.13			
0.90	Heimgartner, M.		0.45		0.45			
1.00	Hu, Ping		0.50		0.50			
0.50	Lang, Paul		0.10	0.30	0.10			
1.00	Losier, Steve	0.20	0.30	0.10	0.20		0.10	0.10
0.15	Mattson, Philip	0.15						
0.50	Morrissey, D.		0.25		0.25			
0.50	Mulvey, Kate			0.30			0.10	0.10
0.10	O'Brien, Amy	0.10						
0.50	Petho, Karen		0.25		0.25			
0.50	Raney, Mark	0.10		0.30			0.05	0.05
1.00	Zamora, Courtney		0.50		0.50			
8.63	Totals	1.55	2.84	1.00	2.84		0.25	0.25
Budgeted LY	Support Service Member	WAF 1	WAF 2	WAF 3	WAF 4	WAF 5	WAF 6	WAF 7
	Louis, Joan							
	Potter, Ruth							
	Li, Wei							
	Li, Yu							
	Litton, Lynne							
	Totals							

5 WORK PLANNING

5.1 Requirements: Work Authorization Forms (WAFs)

Work Authorization Forms (WAFs) are used by EPA to direct the allocation of program funding to specific project requirements. The Libby Asbestos Project is devoted to safely identifying and neutralizing tremolite asbestos threats to public health in a community afflicted by this deadly contaminant. While much about the location and extent of contamination is now understood because of Volpe Center's earlier Libby Asbestos Project accomplishments, knowledge about the contaminant and its threat to residents of the community or occupants of a particular structure is not complete. The findings of ongoing remedial investigations and assessments generate new understanding of hazards and cleanup requirements that, in turn, impact project priorities, schedules, and resource requirements. Additionally, all remedial activity is constrained by climate and may be quickly and adversely impacted by unfavorable weather. Consequently, the Libby Asbestos Project must smoothly respond to changes in requirements, constraints, and risks affecting remedial activities. The WAF budgeting and scheduling process, focusing principally on WAF requirements, permits and facilitates smooth, effective response.

5.2 Requirements: WAF Budgeting and Scheduling Process

WAFs under IAG DW6995388401 provide funds for specific work to be performed by the Volpe Center under IAG tasks. In addition to budget information, WAFs define periods of performance and deliverables required by EPA. WAFs are developed and approved by the Volpe Center Project Manager (PM) and the EPA Remedial Project Manager (RPM) by means of a cyclic process. Prior to the start of a fiscal year, the EPA RPM and the Volpe Center PM discuss overall program requirements. The Volpe Center PM, assisted by the project's Budget Analyst and Task Managers, then develops and validates detailed monthly budget and schedule requirements. These requirements are presented to the EPA RPM by WAF category for approval. This process recurs quarterly to update WAF requirements and their corresponding schedules and budget allocations. However, since Libby Asbestos Project requirements and constraints may change to a material extent on a daily basis, they are continually assessed for WAF impact on WAF budgets and schedules. Project requirements and constraints are regularly addressed during routine project management dialogue between the Volpe Center PM and the EPA RPM. Accordingly, the WAF Budgeting and Scheduling Process is used to manage Change Control for the Libby Asbestos Project. Problems and issues regarding WAF requirements and constraints are identified and discussed during monthly project reporting required by IAG Terms and Conditions (Paragraph 1.1.5).

5.3 Requirements: IAG Tasks and Associated WAFs

IAG tasks, which are listed in Figure 1, delineate the categories of support that the Volpe Center is authorized to perform in order to achieve the goals of the Libby Asbestos Project. WAFs are specific direction from EPA that is used to implement the IAG tasks. Following is how the IAG tasks map to the WAFs currently in force:

Figure 7: Alignment of IAG Tasks and WAFs

IAG Task #	IAG Requirement	WAF #	SOW Description
1	Perform cleanup and related actions	4	Cleanup Remediation Support
2	Provide support of cleanup operations	2	Engineering Design & Oversight
2	Provide support of cleanup operations	5	Burlington Northern Santa Fe (BNSF) Oversight
2	Provide support of cleanup operations	6	Flyway Oversight
3	Provide site- specific assistance to support investigation and study	3	Remedial Investigation (RI), Contaminant Screening Study (CSS), Performance Evaluation (PE) and Exposure Assessment
3	Provide site- specific assistance to support investigation and study	7	Troy Investigation Sample Coordination and Analytical Support
3	Provide site- specific assistance to support investigation and study	8	Toxicology studies of the Libby Amphibole
4	Provide other assistance to support basic operations at the Libby Asbestos Site	1	Data loading Database management, Superfund records management GIS, and General Support

5.4 Requirements, Deliverables, and Schedules of WAFs under Volpe Center – EPA No. IAG DW699538401

5.4.1 WAF 1 – Data Management and General Support

As part of their support to the Libby Asbestos Project, the Volpe Center manages and conducts technical and administrative tasks related to the Libby Project Data (electronic and paper form data). This work is being conducted in accordance with the provisions of IAG Task 4.

5.4.1.1 WAF 1 – Statement of Work

Task 1. Conduct data entry activities relating to all types of data collection related to the

Libby Asbestos Project.

Task 2. Conduct quality assurance and quality control tasks for all data entry activities as described in the rules for the Libby Project Database.

Task 3. Conduct administrative tasks for all data entry activities. Typical administrative tasks include filing all sample documentation, such as chain of custody forms, sample results, lab count sheets, surveys, etc.

Task 4. Conduct database management activities including development, analysis, and tracking of budgets for all costs associated with database tasks.

Task 5. Conduct database development tasks. In particular, make modifications, as determined effective, to the existing Libby Project Database, eLASTIC database and the geographic information system (GIS) database, investigating and implementing methods to optimize input of data to the databases.

Task 6. Conduct tasks associated with budgetary and administrative management of the Interagency Agreement as a whole.

5.4.1.2 WAF 1 – FY07 Project Objectives

- Develop, Test and implement
 - Changes to eLASTIC to improve data quality
 - Changes to the DataEntry application to improve usability
 - Document and modify as needed applications using the LibbyVCS server
 - Document and modify the Libby DB for the reporting initiative
 - Deploy a backup server at the EPA CoOP location
- QA/AC
 - Develop a validation program to improve data quality within the database
- Queries
 - Blind Queries as needed
 - Miscellaneous queries as needed
- DOJ
 - Queries as needed
 - Data analysis as needed

5.4.1.3 WAF 1 – Deliverables

- Bi-Weekly Update
- Monthly Progress Report
- Quarterly Budget Estimate

Figure 8: WAF 1 Budget and Period of Performance

WAF No.	Title of WAF	Period of Performance	Amount of WAF	Running Total
WAF 1	Database & General support	04/24/03 - 07/01/03	\$ 100,000	\$ 100,000
WAF 1A	Database & General support	06/15/03 - 09/15/03	\$ 300,080	\$ 400,080
WAF 1B	Database & General support	07/14/03 - 09/14/03	\$ 236,161	\$ 636,241
WAF 1C	Database & General support	09/15/03 - 11/01/03	\$ 203,510	\$ 839,751
WAF 1D	Database & General support	11/01/03 - 11/30/03	\$ 27,363	\$ 867,114
WAF 1E	Database & General support	11/01/03 - 02/28/04	\$ 236,472	\$ 1,103,586
WAF 1F	Database & General support	02/29/04 - 05/15/04	\$ 470,552	\$ 1,574,138
WAF 1G	Database & General support	05/16/04 - 7/15/04	\$ 137,379	\$ 1,711,517
WAF 1H	Database & General support	7/15/04 - 10/15/04	\$ 256,391	\$ 1,967,908
WAF 1I	Database & General support	10/15/2004 - 11/15/04	\$ 59,536	\$ 2,027,444
WAF 1J	Database & General support	11/15/04 - 1/31/2005	\$ 202,047	\$ 2,229,491
WAF 1K	Database & General support	1/31/05 - 4/15/05	\$ 271,960	\$ 2,501,451
WAF 1L	Database & General support	4/15/05 - 5/31/05	\$ 138,299	\$ 2,639,750
WAF 1M	Database & General support	6/1/05 - 9/30/05	\$ 204,516	\$ 2,844,266
WAF 1N	Database & General support	10/1/05 - 11/15/05	\$ 102,656	\$ 2,946,922
WAF 1'O'	Database & General support	11/15/05 - 1/15/06	\$ 5,885	\$ 2,952,807
WAF 1P	Database & General support	1/15/06 - 5/15/06	\$ 409,693	\$ 3,362,500
WAF 1Q	Database & General support	5/15/06 - 6/15/06	\$ (33,538)	\$ 3,328,962
WAF 1R	Database & General support	6/16/06 - 7/15/06	\$ 114,065	\$ 3,443,027
WAF 1S	Database & General support	7/16/06 - 10/31/06	\$ 409,560	\$ 3,852,587
WAF 1T	Database & General support	11/1/06 - 1/31/07	\$ 2,484	\$ 3,855,071
WAF 1U	Database & General Support	2/1/07 - 5/30/07	\$ 452,925	\$ 4,307,996
WAF 1V	Database & General Support	5/1/07 - 6/30/07	\$ 141,256	\$ 4,449,522
		TOTAL	\$4,449,522.	

5.4.2 WAF 2 – Engineering Design and Oversight

As part of their support to the Libby Asbestos Project, the Volpe Center manages and conducts technical tasks related to engineering design and oversight, including construction design and technical activities for residential and non-residential cleanup/remediation projects involving contaminated soil, vermiculite-containing insulation (VCI) and other asbestos-contaminated material (ACM). This work is being conducted in accordance with the provisions of IAG Task 2.

5.4.2.1 WAF 2 – Statement of Work

Task 1. Sampling and Analysis. Conduct sampling and analysis to support removal action activities. Task includes sampling and analysis of soil, air, and personnel during and after cleanup/remediation. Task also includes sampling and analysis to support removal action designs.

Task 2. Construction Design. Conduct pre-design investigations and property surveys, as necessary, to collect data for engineering and removal action designs. Develop removal action designs for residential and commercial properties. Task also includes developing a new protocol and Standard Operating Procedure (SOP) for quantifying visible vermiculite (vv) in yards where soil results were non-detect (ND) and conducting pre-design investigations in accordance with the new ND-vv SOP. Areas of ND-vv will be clearly delineated as alternate removal areas on the removal action design documents.

Task 3. Health and Safety Oversight. Perform on-site health and safety inspections. Conduct on-site observations of cleanup/remediation activities for compliance with the Comprehensive Health and Safety Plan (CHASP) and the Removal Action Work Plan (RAWP).

Task 4. Cleanup/Remediation Coordination, Oversight, and Administration. Perform planning, coordination, and administrative functions required to prepare property owners, neighbors, cleanup/remediation staff, and oversight staff for cleanup/remediation activities, and to facilitate successful project completion. Conduct oversight of removal action activities to ensure compliance with removal design documents and schedules. Task also includes documentation, validation, and reporting of results, expenses, and performance.

Task 5. Community Involvement Support. Provide and maintain the EPA Information Center as a local information resource for residents, visitors and the media. Task also includes supporting public meetings, public notices, and mailings, as necessary. Support also includes community involvement coordination as well as necessary notifications, meetings, agreements, and relocation support. Task also includes development and maintenance of residential and commercial property folders for removal sites. In addition, a residential property folder needs to be developed for the Parker Property at 5000 Highway 37N, also referred to as the Former Screening Plant Site.

5.4.2.2 WAF 2 – FY07 Project Objectives

The underlined portions below constitute those parts of the WAF 2 plan that will be executed during the period of performance.

- Project Management of design and oversight support
- Update of project documents (CHASP, RAWP, Construction Specs)
- Community Involvement Coordination (CIC), including EPA Information Center
- Common Fill Support (procurement, sampling, oversight)
- Topsoil Support (procurement, sampling, oversight)
- Landscaping Support (procurement, oversight)
- Quick Response remediation requirements (design, oversight)
- 2007 Unique Properties (pre-design investigations, design development, oversight)
- 2007 Designs/Cleanups (pre-design investigations, design development, oversight)

5.4.2.3 WAF 2 – Deliverables

- Bi-Weekly Update (April 1 – October 31, 2007)
- Monthly Progress Report
- Residential Removal Work Plans
- Quarterly Budget Estimate

Figure 9: WAF 2 Budget and Period of Performance

WAF No.	Title of WAF	Period of Performance	Amount of WAF	Running Total
WAF 2	Design & Oversight Support	06/15/03 - 09/15/03	\$ 506,580	\$ 506,580
WAF 2A	Design & Oversight Support	07/14/03 - 09/14/03	\$ 901,937	\$ 1,408,517
WAF 2B	Design & Oversight Support	09/15/03 - 11/01/03	\$ 1,706,454	\$ 3,114,971
WAF 2C	Design & Oversight Support	11/01/03 - 11/30/03	\$ 731,900	\$ 3,846,871
WAF 2D	Design & Oversight Support	11/01/03 - 02/28/04	\$ 1,883,588	\$ 5,730,459
WAF 2E	Design & Oversight Support	02/29/04 - 05/15/04	\$ 1,257,132	\$ 6,987,591
WAF 2F	Design & Oversight Support	05/16/04 - 7/15/04	\$ 817,726	\$ 7,805,317
WAF 2G	Design & Oversight Support	7/15/04 -10/15/04	\$ 2,010,311	\$ 9,815,628
WAF 2H	Design & Oversight Support	10/15/2004 -11/15/04	\$ 649,658	\$ 10,465,286
WAF 2I	Design & Oversight Support	11/15/2004 -12/31/04	\$ 165,000	\$ 10,630,286
WAF 2J	Design & Oversight Support	12/31/2004 -1/31/2005	\$ 881,518	\$ 11,511,804
WAF 2K	Design & Oversight Support	1/31/05 - 4/15/05	\$ 1,796,160	\$ 13,307,964
WAF 2L	Design & Oversight Support	4/15/05 - 5/31/05	\$ 911,249	\$ 14,219,213
WAF 2M	Design & Oversight Support	6/1/05 - 9/30/05	\$ 3,242,018	\$ 17,461,231
WAF 2N	Design & Oversight Support	10/1/05 - 11/15/05	\$ 1,075,742	\$ 18,536,973
WAF 2'O'	Design & Oversight Support	11/15/05 - 1/15/06	\$ 1,384,773	\$ 19,921,746
WAF 2P	Design & Oversight Support	1/15/06 - 5/15/06	\$ 3,429,121	\$ 23,350,867
WAF 2Q	Design & Oversight Support	5/15/06 - 6/15/06	\$ 320,679	\$ 23,671,546
WAF 2R	Design & Oversight Support	6/16/06 - 7/15/06	\$ 1,323,732	\$ 24,995,278
WAF 2S	Design & Oversight Support	7/16/06 - 10/31/06	\$ 2,022,776	\$ 27,018,054
WAF 2T	Design & Oversight Support	7/16/06 - 10/31/06	\$ 423,644	\$ 27,441,698
WAF 2U	Design & Oversight Support	7/16/06 - 10/31/06	\$ (159,018)	\$ 27,282,680
WAF 2V	Design & Oversight Support	11/1/06 - 1/31/07	\$ 365,891	\$ 27,648,571
WAF 2W	Design & Oversight Support	11/1/06 - 1/31/07	\$ 986,373	\$ 28,634,944
WAF 2X	Design & Oversight Support	2/1/07 - 4/30/07	\$ 1,679,489	\$ 30,314,433
WAF 2Y	Design & Oversight Support	5/1/07 - 6/30/07	\$ 1,668,839	\$ 31,983,272
		TOTAL	\$ 31,983,272	

5.4.3 WAF 3 – RI/CSS/PE/EA under IAG Task 3

As part of support to the Libby Asbestos Project, the Volpe Center manages and conducts technical tasks related to Cleanup/Remediation Support. This support includes Remedial Investigation and Feasibility Study (RI/FS) activities including investigation, sample preparation, analytical activities, risk assessment support, development/screening of remedial alternatives as well as review and preparation of technical documents and data analysis. Additional support activities include Contaminant Screening Study (CSS) documentation, investigation, sample preparation, and analytical activities; Performance Evaluation (PE) studies for assessing analytical methodologies for effective identification of disease-causing asbestos in soils and other media; and general management, engineering, data analysis, documentation and technical direction required to meet EPA Region 8 objectives for cradle-to-grave management of contaminated soil, vermiculite-containing insulation (VCI), and other asbestos-contaminated material (ACM). This work is being conducted in accordance with the provisions of IAG Task 3.

5.4.3.1 WAF 3 – Statement of Work

Task 1. Remedial Investigation (RI). Perform sample preparation, management, and analytical activities as needed to determine, document, and monitor cleanup requirements and removal/remediation activities for the Libby Superfund Site (including Libby Residential/Commercial and Processing Area Operable Units).

Task 2. Contaminant Screening Study (CSS). As needed, continue to plan and conduct inspections, interviews, and sampling/analytical activities to screen remaining properties for contamination.

Task 3. Base-line Risk Assessment / Remedial Investigation / Feasibility Study / Record of Decision Support (BRA/RI/FS/ROD). Review and prepare technical documents and data analysis in support of developing EPA's Record of Decision (ROD) for the Libby Superfund Site (including Operable Units 1: Export Plant, 2: Screening Plant, 4: Libby Residential/Commercial Properties, 5: Stimson Lumber, and 6: BNSF Rail Yard), as well as additional supporting risk assessment, sampling and analytical activities, as needed. Support also includes development of a site-wide Quality Assurance Project Plan (QAPP) to ensure consistency across all investigations to support the ROD.

Task 4. Ambient Air Monitoring Program. Assist with conducting an outdoor ambient air-monitoring program within a study area of the Libby Superfund Site. The objective of the program being to collect sufficient data on concentrations of LA within the outdoor ambient air to support estimates of human health risks and to characterize spatial patterns and temporal trends of LA in and around the town of Libby. Support shall include program design, documentation, and implementation, including sample collection and analysis.

Task 5. Indoor and Outdoor Activity Based Sampling (ABS). Assist with conducting an interior and exterior activity-based-sampling study at various properties throughout Libby in support of the risk assessment and ROD. Support shall include study design, documentation, and implementation, including sample collection and analysis.

Task 6. Performance Evaluation (PE). Assist with PE sample preparation activities, as well as perform sample management and analytical activities to assess various analytical methods used to identify and quantify the presence of Libby asbestos fibers in soils.

Task 7. General. Perform analyses of management and environmental engineering issues, and provide appropriate technical direction to support effective and efficient cleanup/remediation. These include analysis to identify activities potentially associated with increased risk of asbestos-related health effects and technical direction to support site-specific decisions regarding the need for remedial action to protect human health. Post-cleanup sampling will also be conducted under this task.

5.4.3.2 WAF 3 – FY07 Project Objectives

TBD

5.4.3.3 WAF 3 – Deliverables

- Bi-Weekly Update (as requested)
- Monthly Progress Report
- Quarterly Budget Estimate

Figure 10: WAF 3 Budget and Period of Performance

WAF No.	Title of WAF	Period of Performance	Amount of WAF	Running Total
WAF 3	RI/CSS/PE Study	06/15/03 - 09/15/03	\$ 422,207	\$ 422,207
WAF 3A	RI/CSS/PE Study	07/14/03 - 09/14/03	\$ 469,645	\$ 891,852
WAF 3B	RI/CSS/PE Study	09/15/03 - 11/01/03	\$ 278,297	\$ 1,170,149
WAF 3C	RI/CSS/PE Study	11/01/03 - 11/30/03	\$ 17,815	\$ 1,187,964
WAF 3D	RI/CSS/PE Study	11/01/03 - 02/28/04	\$ (144,033)	\$ 1,043,931
WAF 3E	RI/CSS/PE Study	02/29/04 - 05/15/04	\$ 309,448	\$ 1,353,379
WAF 3F	RI/CSS/PE Study	05/16/04 - 7/15/04	\$ 462,496	\$ 1,815,875
WAF 3G	RI/CSS/PE Study	7/15/04-10/15/04	\$ 137,953	\$ 1,953,828
WAF 3H	RI/CSS/PE Study	10/15/2004-11/15/04	\$ 42,648	\$ 1,996,476
WAF 3I	RI/CSS/PE Study	11/15/2004-1/31/2005	\$ 380,681	\$ 2,377,157
WAF 3J	RI/CSS/PE Study	1/31/05-4/15/05	\$ 285,328	\$ 2,662,485
WAF 3K	RI/CSS/PE Study	4/15/05-5/31/05	\$ 33,910	\$ 2,696,395
WAF 3L	RI/CSS/PE Study	6/1/05-9/30/05	\$ 16,207	\$ 2,712,602
WAF 3M	RI/CSS/PE Study	10/1/05-11/15/05	\$ 327,883	\$ 3,040,485
WAF 3N	RI/CSS/PE Study	11/15/05-1/15/06	\$ 412,634	\$ 3,453,119
WAF 3O	RI/CSS/PE Study	1/15/06-5/15/06	\$ 507,338	\$ 3,960,457
WAF 3P	RI/CSS/PE Study	5/15/06-6/15/06	\$ 67,026	\$ 4,027,483
WAF 3Q	RI/CSS/PE Study	6/16/06-7/15/06	\$ 311,164	\$ 4,338,647
WAF 3R	RI/CSS/PE Study	7/16/06-10/31/06	\$ 235,000	\$ 4,573,647
WAF 3S	RI/CSS/PE Study	7/16/06-10/31/06	\$ (423,644)	\$ 4,150,003
WAF 3T	RI/CSS/PE Study	11/1/06-1/31/07	\$ 7,125	\$ 4,157,127
WAF 3U	RI/CSS/PE Study	11/1/06-1/31/07	\$ 947,485	\$ 5,104,612
WAF 3V	RI/CSS/PE Study	2/1/07 – 4-30/07	\$ 757,768	\$ 5,862,380
WAF 3W	RI/CSS/PE Study	5/1/07 – 6/30/07	\$ 1,169,688	\$ 7,032,068
		TOTAL	\$ 7,032,068	

5.4.4 WAF 4 – Cleanup Remediation Support under IAG Task 1

As part of their support to the Libby Asbestos Project, the Volpe Center manages and conducts cleanup and remediation tasks, including “cradle-to-grave” hazardous waste management of contaminated soil, vermiculite-containing insulation (VCI), asbestos-contaminated material (ACM), and other commingled or associated materials. This work is being conducted in accordance with the provisions of IAG Task 1.

5.4.4.1 WAF 4 – Statement of Work

Task 1. Planning. Conduct activities such as pre-cleanup site walks and investigations, to support planning for cleanup.

Task 2. Cleanup Management and Acquisition Support.

- a. Conduct daily management activities for cleanup activities. Tasks include:
 1. Monitoring cleanup schedules, budgets, and plans
 2. Approvals and revisions
 3. Reporting
 4. Health and safety monitoring
 5. Inspection, resolution of discrepancies (“punch list”), and acceptance
- b. Conduct acquisition tasks necessary to support cleanup activities. Tasks include the full scope of pre-award and post-award acquisition and contract management responsibilities.

Task 3. Cleanup Coordination. Coordinate with residents and businesses in support of cleanup activities, including relocations. Coordinate various tasks among multiple Volpe contractors, as well as with other EPA contractors conducting cleanup activities in Libby.

Task 4. Reporting. Provide bi-weekly progress updates to the EPA Region 8 Remedial Program Manager. All other reporting will be consistent with the requirements of the Interagency Agreement.

Task 5. Waste Management. Perform hazardous waste operations and management of contaminated soil, VCI, ACM, and other commingled or associated materials.

5.4.4.2 WAF 4 – FY07 Project Objectives

The underlined portions below constitute those parts of the WAF 4 plan that will be executed during the period of performance.

- Project Management of cleanup and cleanup support
- Community Involvement Coordination (CIC) in support of cleanup activities
- Common Fill Support (procurement, administration)
- Topsoil Support (procurement, administration)
- Landscaping Support (procurement, administration, construction)
- Security Contract Support (procurement, administration)
- Relocation Support (procurement, administration)
- Remediation Contract Support (procurement, administration, construction)
- Quick Responses [as necessary] (procurement, administration, construction)

- Unique Properties [TBD - 5 properties] (procurement, administration, construction)
- Mine Disposal Operations [TO 40] (procurement, administration, construction)
- Landfill Disposal Operations [TO 41] (procurement, administration, construction)
- TO 42 Cleanups (Apr/May) [28 properties] (procurement, administration, construction)
- TO 43 Cleanups (May/Jun) [28 properties] (procurement, administration, construction)
- TO 44 Cleanups (Jun/Jul) [32 properties] (procurement, administration, construction)
- TO 45 Cleanups (Jul/Aug) [30 properties] (procurement, administration, construction)
- TO 46 Cleanups (Aug/Sep) [30 properties] (procurement, administration, construction)
- TO 47 Cleanups (Sep/Oct) [17 properties]

5.4.4.3 WAF 4 – Deliverables

- Bi-Weekly Update (April 1 – October 31, 2007)
- Monthly Progress Report
- Quarterly Budget Estimate

Figure 11: WAF 4 Budget and Period of Performance

WAF No.	Title of WAF	Period of Performance	Amount of WAF	Running Total
WAF 4	Cleanup & Remediation	06/15/03 - 08/15/03	\$ 156,133	\$ 156,133
WAF 4A	Cleanup & Remediation	07/14/03 - 09/14/03	\$ 1,292,257	\$ 1,448,390
WAF 4B	Cleanup & Remediation	09/15/03 - 11/01/03	\$ 1,031,729	\$ 2,480,119
WAF 4C	Cleanup & Remediation	11/01/03 - 11/30/03	\$ 122,922	\$ 2,603,041
WAF 4D	Cleanup & Remediation	11/01/03 - 02/28/04	\$ 1,650,973	\$ 4,254,014
WAF 4E	Cleanup & Remediation	02/29/04 - 05/15/04	\$ 1,067,868	\$ 5,321,882
WAF 4F	Cleanup & Remediation	05/16/04 - 7/15/04	\$ 2,690,399	\$ 8,012,281
WAF 4G	Cleanup & Remediation	7/15/04 - 10/15/04	\$ 2,473,622	\$ 10,485,903
WAF 4H	Cleanup & Remediation	10/15/04 - 12/31/04	\$ 747,527	\$ 11,233,430
WAF 4I	Cleanup & Remediation	12/31/04 - 1/31/05	\$ (464,246)	\$ 10,769,184
WAF 4J	Cleanup & Remediation	1/31/05 - 4/15/05	\$ 2,481,483	\$ 13,250,667
WAF 4K	Cleanup & Remediation	4/15/05 - 5/31/05	\$ 1,406,542	\$ 14,657,209
WAF 4L	Cleanup & Remediation	6/1/05 - 9/30/05	\$ 3,537,259	\$ 18,194,468
WAF 4M	Cleanup & Remediation	10/1/05 - 11/15/05	\$ 31,319	\$ 18,225,787
WAF 4N	Cleanup & Remediation	11/15/05 - 1/15/06	\$ 49,131	\$ 18,274,918
WAF 4O	Cleanup & Remediation	1/15/06 - 5/15/06	\$ 3,353,847	\$ 21,628,765
WAF 4P	Cleanup & Remediation	5/15/06 - 6/15/06	\$ 1,945,833	\$ 23,574,598
WAF 4Q	Cleanup & Remediation	6/16/06 - 7/15/06	\$ 1,751,039	\$ 25,325,637
WAF 4R	Cleanup & Remediation	7/16/06 - 10/31/06	\$ 1,392,168	\$ 26,717,805
WAF 4S	Cleanup & Remediation	7/17/06 - 10/31/06	\$ -	\$ 26,717,806
WAF 4T	Cleanup & Remediation	7/17/06 - 10/31/06	\$ 947,485	\$ 26,876,824
WAF 4U	Cleanup & Remediation	11/1/06 - 1/31/07	\$ -	\$ 26,876,824
WAF 4V	Cleanup & Remediation	11/1/06 - 1/31/07	\$ (68,858)	\$ 26,807,966
WAF 4W	Cleanup & Remediation	2/1/07 - 4/30/07	\$ 3,327,587	\$ 30,135,551
WAF 4X	Cleanup & Remediation	5/1/07 - 6/30/07	\$ 3,468,312	\$ 33,603,863
TOTAL			\$ 33,603,863	

5.4.5 WAF 5 – BNSF Oversight under IAG Task 2

As part of their support to the Libby Asbestos Project, the Volpe Center manages and conducts technical tasks related to Oversight of Cleanup/Remediation, including cleanup/remediation of asbestos-contaminated material (ACM) by Burlington Northern Santa Fe Corporation (BNSF) of its rail facilities and property. This work is being conducted in accordance with the provisions of IAG Task 2.

5.4.5.1 WAF 5 – Statement of Work

Task 1. Review and Assess Plans and Specifications for Cleanup/Remediation.

Perform engineering review and assessment of BNSF work plans and specifications for cleanup and remediation to include:

- a. Engineering and design documentation including analyses, results, drawings, specifications, and detailed schedules.
- b. Health and safety plans, including air sampling/monitoring
- c. Public information and coordination plans
- d. Site preparation plans
- e. Mobilization plans
- f. Contingency plans
- g. Removal area management
- h. Hazardous waste management
- i. Contaminated soil removal and containment
- j. Soil clearance sampling
- k. Property restoration
- l. Inspection, resolution of discrepancies (“punch list”), and acceptance

Task 2. Work Plan. Review, validate, and coordinate the Work Plan for Cleanup/Remediation of BNSF facilities and property.

Task 3. Health and Safety Oversight. Perform on-site health and safety inspection. Conduct on-site observations of cleanup/remediation activities for compliance with the Comprehensive Health and Safety Plan (HASP) and Cleanup/Remediation work plans. Conduct sampling and analyses of soil and air to ensure health and safety during and after cleanup/remediation. Manage sampling and analysis data. Perform surveys to document sampling locations for future analysis of contamination patterns and exposure.

Task 4. Oversight of Cleanup/Remediation. Monitor planning and coordination functions required in preparing neighbors, cleanup/remediation staff, and oversight staff for cleanup/remediation activities, and facilitate successful project completion. Includes monitoring and documenting all necessary notifications, meetings, agreements, and relocations. Includes documentation, validation, and reporting of plans, results, performance, and incidents.

5.4.5.2 WAF 5 – FY07 Objectives

This WAF is presently inactive, there are currently no plans for additional activities.

5.4.5.3 WAF 5 – Deliverables

None.

Figure 12: WAF 5 Budget and Period of Performance

WAF No.	Title of WAF	Period of Performance	Amount of WAF	Running Total
WAF 5	BNSF Oversight	06/15/03 - 09/15/03	\$ 15,000	\$ 15,000
WAF 5A	BNSF Oversight	01/30/04 - 04/15/04	\$ 20,000	\$ 35,000
WAF 5D	BNSF Oversight	4/15/04-12/31/04	\$ (15,000)	\$ 20,000
WAF 5E	BNSF Oversight	4/15/04-12/31/04	\$ (6,430)	\$ 13,570
WAF 5F	BNSF Oversight	1/1/05-11/16/06	\$ -	\$ 13,570
		TOTAL	\$ 13,570	

5.4.6 WAF 6 – Flyway Oversight

As part of their support to the Libby Asbestos Project, the Volpe Center manages and conducts technical tasks related to Oversight of Cleanup/Remediation, including oversight of cleanup/remediation of asbestos-contaminated material (ACM) at the Flyway Property site by the Potentially Responsible Party (PRP), W.R.Grace. This work is being conducted in accordance with the provisions of IAG Task 2.

5.4.6.1 WAF 6 – Statement of Work

Task 1. Daily monitoring of remedial action activities performed by the PRP's contractor for compliance with the Flyway Property Removal Action Work Plan.

Task 2. Sampling and analysis of soil and perimeter air in accordance with the Flyway Property Removal Action Work Plan.

5.4.6.2 WAF 6 – FY07 Project Objectives

This WAF is presently inactive, there are currently no plans for additional activities.

5.4.6.3 WAF 6 – Deliverables

None.

Figure 13: WAF 6 Budget and Period of Performance

WAF No.	Title of WAF	Period of Performance	Amount of WAF	Running Total
WAF 6	Flyway Property Oversight	06/15/03 - 12/31/04	\$ 40,000	\$ 40,000
WAF 6A	Flyway Property Oversight	06/15/03 - 12/31/04	\$ 72,354	\$ 112,354
WAF 6B	Flyway Property Oversight	06/15/03 - 12/31/04	\$ (19,931)	\$ 92,423
WAF 6C	Flyway Property Oversight		\$ (65,841)	\$ 26,582
		TOTAL	\$ 26,582	

5.4.7 WAF 7 – Troy Oversight

As part of support to the Libby Asbestos Project, the Volpe Center manages and conducts technical tasks related to Cleanup/Remediation Support. This support includes Remedial Investigation (RI) activities, including investigation, sample preparation, and analytical activities. Additional support activities include investigation, sample preparation, and analytical activities; Performance Evaluation (PE) studies for assessing analytical methodologies for effective identification of disease-causing asbestos in soils and other media; and general management, engineering, data analysis, documentation and technical direction required to meet EPA Region 8 objectives for cradle-to-grave management of contaminated soil, vermiculite-containing insulation (VCI), and other asbestos-contaminated material (ACM). This work is being conducted in accordance with the provisions of IAG Tasks 2 and 3.

5.4.7.1 WAF 7 – Statement of Work

Task 1. Remedial Investigation (RI) and Feasibility Study (FS). Perform sample preparation, management, analytical activities, risk assessment support, and development/screening of remedial alternatives as needed to determine and document cleanup requirements.

Task 2. Troy Asbestos Property Evaluation (TAPE) Work Plan. Review and assist EPA, the state and the state's A&E contractor with finalizing the TAPE work plan.

Task 3. Site Model Development. Assist the state with developing a conceptual site model and performing related data needs assessments as needed for the Troy Operable Unit.

Task 4. Sample Coordination. Oversee and assist the state's A&E contractor with implementing sample collection procedures, and sample data management, as well as to coordinate sample analysis, conduct sample preparation activities and to analyze the samples collected.

Task 5. General. Perform analyses of management and environmental engineering issues, and provide appropriate technical direction to support effective and efficient cleanup/remediation. These include analysis to identify activities potentially associated with increased risk of asbestos-related health effects and technical direction to support site-specific decisions regarding the need for remedial action to protect human health.

5.4.7.2 WAF 7 – FY07 Project Objectives

- Troy Support: 1000 properties; 2208 Dust – ASTM, 8806 soil

5.4.7.3 WAF 7 – Deliverables

- Bi-Weekly Update (as requested)
- Project-specific Microsoft Project Schedule (as requested)
- Monthly Progress Report
- Quarterly Budget Estimate

Figure 14: WAF 7 Budget and Period of Performance

WAF No.	Title of WAF	Period of Performance	Amount of WAF	Running Total
WAF 7	Troy Investigation Support	11/1/06 – 1/31/07	\$ 35,000	\$ 35,000
WAF 7A	Troy Investigation Support	2/1/07 – 4/30/07	\$ 282,231	\$ 317,231
WAF 7B	Troy Investigation Support	5/1/07 – 6/30/07	\$ 0	\$ 317,231
		TOTAL	\$317,231	

5.4.8 WAF 8 – Toxicology Studies

The purpose of this WAF is to advance the understanding of the effects of the Libby amphibole on human health.

5.4.8.1 WAF 8 – Statement of Work

The Volpe Center shall provide the personnel, materials and supplies to conduct the following tasks related to the Toxicity Studies for the Libby Superfund Site:

Task 1. Tissue Analysis. Provide technical and analytical support as needed to both develop analytical protocols for evaluating asbestos content of human and animal tissue, as well as performing the actual analysis of such tissue.

Task 2. Inhalation Study. Provide technical and field resources for supporting EPA's efforts to develop and conduct a Libby amphibole (LA) dose-response animal inhalation study. Specific support shall include providing technical assistance, as requested, with study development, documentation, and collection, preparation and characterization of LA dosing material from the Libby Mine. The Volpe Center shall develop, in cooperation with EPA and USGS, a Sampling and Analysis Plan for collecting dosing material, and assist in the actual collection of the dose material.

Task 3. Epidemiological Database. Assist in the design, development, and administration of an asbestos epidemiological database. The Volpe Center will work with EPA and other agencies, as directed (such as ATSDR), to design and develop a database for capturing, storing, and reporting both historical and future epidemiological data.

5.4.8.2 WAF 8 – FY07 Project Objectives

- TBD

5.4.8.3 WAF 8 – Deliverables

The following deliverables are required as part of this WAF:

- Monthly Progress Report
- Quarterly Budget Estimate

Figure 15: WAF 8 Budget and Period of Performance

WAF No.	Title of WAF	Period of Performance	Amount of WAF	Running Total
WAF 8	Toxicology Studies	5/1/07 – 6/30/07	\$ 57,200	\$ 57,200
		TOTAL	\$57,200	

5.5 2007 Work Plan Summary

Following are the objectives for the 2007 work plan:

Figure 16: Work Plan Summary

Activity	Goal	Sampling & Analysis
Contaminant Screening Surveys	350 properties	384 dust – ASTM, 2534 soil
Preliminary Design Inspections (PDIs)	220 properties for FY07, 240 for the calendar year	Number of samples determined by individual property requirements
Removal Designs	175 properties for FY07, 225 for the calendar year	No sampling required
Removals	175 properties, including 27 large and 5 uniques	Number of samples determined by individual property requirements
Ambient Air Sampling	36 sampling events	1,191 air – ISO (GO's)
Activity-Based Sampling – Interior	80 properties 4 times each (320 events)	640 air – ISO (100 GO's); 320 dust – ISO (100 GO's); 282 soil
Activity-Based Sampling – Exterior	3 scenarios at each of 50 properties (150 events)	528 Air – ISO (300 GOs), 166 soil
Troy Support	Sampling oversight at 1,000 properties	2,208 dust - ASTM
Mine Support	Collect and process samples	210 air – AHERA, 840 soil
RI/FS Support	Collect and process samples	520 soil samples

Following is the list of project documents that are being developed during FY07:

- Comprehensive Site Health and Safety Program (CHSP), delivered December 2006
- Site-wide Quality Assurance Program Plan (QAPP), due February 2007
- Response Action Work Plan (RAWP), delivered April 2007
- Activity-Based Sampling, Sampling and Analysis Plan (ABS SAP)
- Mine Remedial Investigation Sampling and Analysis Plan (Mine RI SAP)
- Community Involvement Coordination (CIC) Guidance Manual update
- Construction Specifications Revision, which were incorporated into the RAWP and delivered April 2007

5.6 Cost Estimation and Budget Allocation

The Libby Asbestos Project budget funds the following activities: science and engineering; demolition, construction, logistics, and allied support; health and safety; information management and technology; and project management and administration. Budget planning and programming for all project requirements is based on information drawn from standard cost estimation guides and from cost factors and rates carefully derived from direct Volpe Center experience with like and similar work. Resulting values are coordinated with the EPA RPM through the WAF Budgeting and Scheduling Process (Paragraph 5.2).

In order to fulfill program requirements the Libby Asbestos Project is structured into four major budget categories:

- a. Volpe Center Engineering, which includes labor, overhead, and travel for Volpe Center employees, and In-house Support Contractors. Since the inception of the project in April 2003 this category has accounted for 10% of the total project costs.
- b. Contracts, which is used to acquire an array of outsourced support, and generally purchased via performance-based task orders. This category has accounted for 85% of the total project costs.
- c. Equipment, Supplies, and Other (purchased material), which has accounted for 1% of the total project costs.
- d. Acquisition Overhead, which funds the activities of the Volpe Center's Acquisition Division for items a. and b. above. This category has accounted for 4% of the total project costs.

5.7 Acquisition

The Volpe Center engineering personnel work in conjunction with the Volpe Center acquisition staff to devise and execute contractor acquisition strategies that support key project activities, enhance competition, and address EPA and DOT procurement goals.

In order for the Libby Asbestos Project to effectively respond to new or changing requirements, the skills, knowledge, and experience of project management and staff are applied to:

- Define and manage the scope of deliverables, schedule, and cost
- Translate requirements into necessary tasks and resources
- Assess and manage risks
- Design and plan the technical approach
- Determine what government or commercial capacities to employ or develop
- Devise and design contracting instruments for technical capacities to be acquired from the commercial sector.

To meet project requirements outsourced thus far, the Libby Asbestos Project has devised approximately many contracts and designed supporting task orders that were initiated and managed by means of a great number of procurement requests. Each contract and task order is, itself, a highly technical sub-project requiring planning, scheduling, tracking, and controlling.

5.7.1 Acquisition Planning (Contracts)

The Libby Asbestos Project actively participates in the Federal Procurement Preference Goals Program for small, disadvantaged, woman-owned, HUBZone, and service-disabled veteran-owned small businesses. Additionally, the Libby Asbestos Project supports EPA objectives to utilize Minority Business Enterprise (MBE) and Woman Business Enterprise (WBE) contractors when planning to meet project requirements using commercial sector capabilities.

The duration of the Libby Asbestos Project often exceeds the effective performance period of supporting contracts. Acquisition of further commercial sector support permits the application of lessons learned to benefit deliverables, schedule, and cost. For example, through prior years' contracting, the project is currently using its third generation of contractors for competitive acquisition of residential remediation services; two of the three contractors qualify as MBE. Following is a list of contract vehicles that are projected to be employed during FY07:

- In-house contracts supporting information technology and operations research analysis. These contracts are used to support budgeting and financial tracking, program administration, data loading and management, and information technology operations and upgrades. The two in-house contracts are:

The Transportation Information Project Support (TRIPS) contract was awarded to Computer Sciences Corporation (CSC). This contract is a performance-based contract with cost-plus-award fee and firm-fixed price provisions. The contract is an indefinite delivery/indefinite quantity (IDIQ) contract with a maximum period of performance of five years, May 1, 2006, through April 30, 2011.

The Transportation Research Analysis and Communications Expertise (TRACX) contract was awarded to Chenega Advanced Solutions & Engineering LLC (CASE). CASE provides the Volpe Center with expertise in the transportation

research, analysis, and communications services in support of the Center's program requirements. The contract expires October 31, 2008.

- Architectural and Engineering (A&E) services contract, which is used to provide support for community involvement activities, engineering designs for asbestos removals, construction oversight, and analytical support. This is a multiple award contract for which competitive task orders are issued. The contract expires in 2010 and the awardees are: Camp Dresser McKee (CDM), TetraTech, and PB Americus.
- Remediation services contract, which is a multiple-award contract used to: conduct asbestos removals at residential and commercial properties throughout Libby; perform landfill operations for the disposal of non-soil asbestos-contaminated materials removed from Libby properties; and perform mine operation services at the former WR Grace mine, which is now being used as a receptacle for the disposal of asbestos-contaminated soil removed from Libby properties.

Currently remediation activities are supported by a multiple-award contract whose period-of-performance was extended to provide services through the end of the 2007 construction season. Environmental Restoration (ER), MCS Environmental, and Libby Restoration are the awardees who are under contract to perform remediation services. Libby Restoration has indicated that it no longer intends to compete for task orders. In addition, the Volpe Center has initiated the activities needed to establish a new contract to cover post-2007 remediation requirements.

- Commercial Item Purchase Contracts are employed to acquire the following goods and services:
 - Landfill Disposal contract, which provide the disposal facility for dumping non-soil asbestos-contaminated materials collected during removals. Lincoln County Landfill is the incumbent for this contract.
 - Fill and topsoil contracts, which is used to purchase clean material for use in property restoration. Each of these contracts expired at the end of the FY06 construction season. The Volpe Center is establishing new contracts that will provide materials through 2009.
 - Landscaping contract, which provides services to restore landscaping at properties where removals have taken place. The contract expired following the end of the 2006 construction season. The Volpe Center is establishing a new contract that will provide landscaping services through 2009.
 - Relocation contracts, which provides temporary housing for families displaced during asbestos removals. Currently the Volpe Center has contract in place with the Venture Inn and Sandman Motel, which expire in May 2007 and December 2007 respectively. The Volpe Center is in the process of initiating a competitive procurement, restricted to Hubzone-

certified businesses, to replace the expiring capacity provided by the Venture Inn.

- Security contract, which protects vacant properties while they are undergoing asbestos removals. Tiptop Security is the incumbent and their contract expires May 2008.

5.7.2 Acquisition Planning (Task Orders)

Use of task orders against task-oriented contracting instruments permits the Libby Asbestos Project to support Performance-based Acquisition policy. Task orders are planned to support activities as described below:

- **A&E Services Contract**
 - TO 1 – Community Involvement, expires December 31, 2008
 - TO 6 – Analytical and Laboratory
 - TO 8 – Removal Oversight, expires March 30, 2007
 - TO 9 – Removal Designs
- **Remediation Contract**
 - TO 40 – Mine Operations, expires October 31, 2007
 - TO 41 – Landfill Operations, expires October 31, 2007
 - TO 42 – April/ May Removals (30 properties)
 - TO 43 – May/June Removals (30 properties)
 - TO 44 – June/July Removals (30 properties)
 - TO 45 – July/August Removals (30 properties)
 - TO 46 – August/September Removals (30 properties)
 - TO 47 – September/October Removals (30 properties)
 - new TO – July Removal (1 unique property)
 - new TO – August/September Removal (2 unique properties)
 - new TO – October Removal (1 unique property)

6 PROJECT CONTROL

6.1 Project Tracking and Control with Microsoft Enterprise Project Management (MSEPM)

The Libby Asbestos Project will employ MSEPM to support project communication, plan, schedule, and control project events, activities, and resources, and track progress. MSEPM will support resource management, portfolio management and project change, project task synchronization, and risk management.

6.1.1 Communication

Use of MSEPM is expected to provide a shared common source of project management information to support collaboration on requirements, resources, changes, synchronization, and risks for the Libby Asbestos Project Team. MSEPM is also expected to provide tools to exploit the information allowing insight into project metrics, issues and risks. See Paragraph 6.6.2, Internal Communication.

6.1.2 Resource Management

MSEPM is expected to support effective planning, scheduling, tracking, and controlling of Libby Asbestos Project resources allocated against changing requirements. For example, the project's staff and management resources involved in highly technical pre-award acquisition activities noted in Paragraph 5.5. Work Planning and Acquisition.

6.1.3 Portfolio Management and Project Change

MSEPM is also expected to aid management of tasks *post-award*. As requirements, priorities, and/or available resources change, MSEPM will permit the project's portfolio of tasks and supporting resources to be assessed for opportunities to consolidate, streamline, and replan to benefit project performance, schedule, and cost. For example, with MSEPM support, changes to the scale, technical content, or precedence of certain project requirements may permit task synergies under certain conditions, not just task resequencing.

6.1.4 Synchronization

MSEPM is expected to support synchronization of support tasks/activities and events with supported tasks/activities and events, providing beneficial insight into tasks' interior workings (e.g., a process that yields residential remediation requirements) or tasks' exterior support (e.g., waste management effort supporting residential remediation) and how it may be improved upon.

6.1.5 Risk Management.

MSEPM is additionally expected to aid identification and mitigation of risks connected with resources, execution of the project portfolio, project changes, and synchronization by highlighting imbalances, inadequacies, and inconsistencies.

6.2 Project Communications

6.2.1 Review

- a. *Paragraph 1.1.5 – IAG Terms and Conditions* prescribes monthly progress reporting to EPA. Some WAF expands this requirement to include both monthly and bi-weekly progress reporting.
- b. *Paragraph 5.2 – WAF Budgeting / Scheduling Process* describes communication involving the Volpe Project Manager (PM), Task Managers, the Project Budget Analyst, and the EPA Remedial Project Manager (RPM) about requirements, budgets, and schedules, and changes thereto.
- c. *Paragraph 6.1.1 – Communication* forecasts that MSEPM will be a shared common source of project management information to support collaboration on requirements, resources, changes, synchronization, and risks for the Libby Asbestos Project Team.

6.2.2 Internal Communications

6.2.2.1 Daily Closeout Meetings

At the conclusion of each workday in Libby MT, the On-Site Project Manager convenes a daily closeout meeting of supporting staff and contractor leadership. Daily closeout meetings review and update Removal Tracking Schedules, the principal source of schedule and performance information for each location being remediated. Daily closeout meetings provide a forum to measure actual daily accomplishments against those planned, identify and assess issues for resolution and lessons learned, and accomplish planning and coordination for the next days of activity. The On-Site Project Manager records and maintains official notes on Daily Closeout Meetings. Issues and other Daily Closeout information of project management significance are communicated to the PM by e-mail and phone.

6.2.2.2 Weekly Field Team Meetings

Each Tuesday during the construction season a teleconference between Libby-located staff and Volpe Center Cambridge team members takes place. The meeting is used to discuss technical and logistical issues that have the potential to alter work priorities or impact the schedule.

6.2.2.2 Bi-Weekly Team Meetings

The Libby Project Team meets every other week. Meetings are preceded by published agenda and followed-up with published minutes (see Section 9.1 – Internal Reporting, below). Team Meetings focus on staffing assignments, cost, schedule, performance metrics, and their attendant risks. Day-to-day, members of the Project Team meet face-to-face, by phone, and by e-mail regarding requirements, resources, risks, and related issues. The collegiality, cooperativeness, and professionalism established and encouraged in formal activities of the Project Team are replicated in the Team's informal communications.

6.2.2.3 Formal Reviews

The Libby Asbestos Project is subject to Quarterly Executive Reviews.

6.2.3 External Communications

6.2.3.1 Formal Reviews

The document titled, "Guidelines for Work to be performed under the Authority of the MOU" states that "...RSPA/Volpe Center and the EPA conduct an annual review of work performed under this MOU." At least once each quarter, the Volpe Center PM and the EPA RPM meet jointly to review the project and address WAF requirements, alternating venues between Cambridge, MA, Libby, MT, and Denver, CO.

6.2.3.2 Informal Coordination

Informal coordination routinely occurs between the Volpe Center PM and the EPA RPM, and between the Volpe Center On-site Project Manager and the EPA RPM. This communication includes project dialogue by phone and e-mail, and face-to-face meetings.

6.2.4 Reports

Reports required by IAG DW6995388401 and WAFs 1 through 7 are shown as follows:

Figure 17: Required Reports

Report Type	IAG Requirement	WAF Requirement
Bi-Weekly Progress Reports		x
*Monthly Progress Reports	x	x
Monthly Cost Reports	x	
Quarterly OPAC transactions	x	
Annual reports regarding small and disadvantaged business utilization	x	
Annual and final inventories of all property acquired by or furnished to Volpe Center with EPA funds	x	

*IAG Terms and Conditions specify the following format for Monthly Progress Reports:

- 1) Site name, site ID number, and IAG number
- 2) Summary of work performed this period
- 3) Estimate of percentage of project completed
- 4) Accounting of funds expended during the reporting period and on the project to date, which includes budget category cost breakdown
- 5) Summaries of all problems and potential problems encountered during the reporting period
- 6) Projected work for the next reporting period

6.2 5 Document Management

Electronic file space for project documentation has been reserved as folder \\vfs995\libbyProject for the above reports and all other official project documents. This electronic storage location is backed-up daily and comprehensively backed up weekly to ensure data availability. Electronic documentation stored in this folder will include:

- Monthly Progress Reports
- Bi-Weekly Update Reports
- Monthly Cost Reports
- Project "PR Master" document
- Schedules
- Electronic acquisition documents (including: Procurement Requests with Scopes of Services, Government Furnished Information (GFI) and cost estimates)
- Other acquisition-related electronic documents comprising Contracting Officer's Technical Representative (COTR) files.
- Electronic contract data (deliverable documents)

6.3 Change Control

Change control is accomplished through the WAF Budgeting and Scheduling Process (Paragraph 5.2).

6.4 Quality Assurance (QA)

Quality Assurance is the process of evaluating overall project performance on a regular basis to provide confidence that the project will satisfy relevant quality standards.

Libby Asbestos Project QA is energized by genuine commitment to continuous quality improvement by all Project participants and applies to:

- Relationships and processes that generate capabilities intended to do the work (e.g., those of the Government that produce a contract).
- Relationships and processes that generate finished work (e.g., those of the Government and/or a contractor that do the work).

Included are relationships between Volpe PM and EPA RPM, within the Volpe Project Team, and between COTRs and Contracting Officers. Included are those engineering, acquisition, and project management processes previously identified in Paragraph 5.6, Acquisition Planning:

- Define and manage scope of deliverables, schedule, and cost
- Translate requirements into necessary tasks and resources
- Assess and manage risks
- Design and plan the technical approach
- Determine what government or commercial capacities to employ or develop
- Devise and design contracting instruments for technical capacities to be acquired from the commercial sector.

Examples of finished work relevant to the Libby Asbestos Project include: completed contaminant sampling and laboratory analyses; collected data, assembled database, and functional data management capabilities; completed scientific analyses, pre-design investigations and engineering designs; removed contamination, remediated properties, and disposed hazardous waste. The keys to QA in this domain include clear communications about the work, certified training required to perform it, effective oversight of the work by knowledgeable Government officials and representatives, and inspected/audited use of, for example:

- Formal plans and procedures
- Forms and templates
- Pre-work briefings
- Post-work reviews/closeout sessions
- Lessons learned analysis and implementation

6.4.1 QA Plan Purpose

The purpose of the QA plan is to identify the process for conducting quality assurance of both the process and product variety, and the parties responsible.

6.4.2 QA Scope

- 1) It is EPA project convention to focus on numbered WAFs for budgeting, scheduling, and reporting. Accordingly, this QA plan will focus on active WAFs.

6.4.3 Staffing: Roles and Responsibilities

- a. The Libby Asbestos Project Manager (PM) will:
 - 1) Implement the quality assurance plan to:
 - a) Ensure project compliance with Volpe Center project management standards and procedures including:
 - i Project Tracking, Reporting and Reviews
 - ii Quality Assurance
 - iii Risk Management
 - iv Project Closeout
 - b) Maintain proper quality and timing of project deliverables
 - c) Achieve project cost objectives.
 - 2) Assist Task/Process Managers and COTRs in their development of QA checkpoints, review procedures, and corrective measures
 - 3) Establish a tracking mechanism for correction/resolution of QA defects
 - 4) Establish a QA lessons learned mechanism to prevent of recurrence
 - 5) Conduct supervisor project reviews including reviews of products, processes, QA corrective actions and lessons learned for the Chief, RTV-4E
- b. Task/Process Managers and COTRs will:
 - 1) Develop and incorporate QA milestones, checkpoints, and reviews into task/process schedules showing QA timelines, QA resources, QA deliverables, and start and end dates.
 - 2) Perform QA reviews and other activities as scheduled, ensure prompt corrective action, and report results and recommendations to the PM, ensure prompt review of deliverables and invoices to permit timely action by the PM
 - 3) Propose resolution of QA problems, track correction of QA defects. and employ QA lessons learned to prevent recurrences
 - 4) Support supervisor project reviews including reviews of products, processes, QA corrective actions, and lessons learned

6.4.4 Reviews

- a. Methodologies and Standards. The principal standards and methodologies that guide Libby Asbestos Project processes and products are contained or referenced in the following:
 - 1) Technical Process Plans for WAFs 1-7 shown in Paragraph 7 of the PMP.
 - 2) Volpe Center – USEPA MOU w/attachments including Guidelines for Work
 - 3) IAG DW6995388401 w/Terms and Conditions and Statement of Work
 - 4) EPA Superfund Financial Management and Recordkeeping, Guidance for Federal Agencies.

- b. Quality Assessments & Reviews. QA assessment and review occurs daily at on-site Libby Asbestos Project Daily Closeout Meetings (see Paragraph 6.2.2.1 of the PMP). Generally, QA checkpoints for WAF tasks/processes/deliverables will occur at least monthly, will be reflected in detailed project schedules, and will be reviewed at monthly team meetings conducted by the PM. See “Staffing: Roles and Responsibilities” above.
- c. Review and Acceptance of Deliverables. See “Staffing: Roles and Responsibilities” above.

6.4.5 Corrective Action

- a. QA corrective action and lessons learned will be integral to the agendas of Daily Closeout Meetings and Monthly Team Meetings.
- b. Corrective and Preventive Measures. See “Staffing: Roles and Responsibilities” above.

6.5 Risk Management

Continuing project risks have been identified in Paragraph 1.5:

- Fostering and maintaining community relations in an area having experienced widespread tremolite asbestos contamination and resultant disease
- Contracting in and for an area having chronic high unemployment
- Protecting health and safety of community members and project workers throughout remediation activities
- Planning, directing, coordinating, and controlling the activities of numerous mutually-supporting remediation entities
- Providing emergency support when required by EPA
- Maintaining the quality of remediation activities as remediation rates increase to achieve EPA objectives
- Accommodating seasonal and unseasonable weather that constrains remediation activities and progress
- Accommodating changes to requirements and budgets

Managing these risks is a continuing activity that involves:

- a. Analyzing the risks to assess their impacts (cost, schedule, performance, business) and probability of occurrence using the risk identification grid from Figure 1 in the Risk Management standard. Analysis also includes developing mitigation strategies to reduce the risk’s impact or probability of occurrence.
- b. Selecting risk mitigation options, formulating contingency plans, and establishing risk triggers to activate them.

6.5.1 Energizing Risk Management

Awareness of conditions or status that may affect project risk areas is essential for effective risk management. The key means of project awareness of performance, schedule, and cost metrics information are Daily Activity Reports, Daily Closeout Meetings, Bi-Weekly Updates, and Monthly Team Meetings (Paragraph 6.2.2, Internal Communications). On these occasions at a minimum, the PM and project staff will

review risk conditions and status, identify risk assessment and response actions, and task appropriate individuals accordingly to follow through and report back.

6.6 Acceptance Plan

- a. Remediated properties are subject to formal acceptance by owners/residents after which work on “punch list” items requiring corrective action continues under pain of withheld payment.
- b. Deliverable contract data such as drawings and plans are subject to formal acceptance.
- c. Deliverable database management capabilities are subject to formal acceptance testing

6.7 Closeout Plan

IAG Terms and Conditions, Paragraph 1.1.4, state:

- a. Upon termination of the IAG, EPA will provide Volpe Center with property disposal instructions and will receive fair-market value for any property acquired with Superfund monies and disposed of or used for non-Superfund activities. Accordingly, purchase and disposal records of all such property will be maintained.
- b. The Volpe Center and its contractors will retain documents described in the Terms and Conditions for a minimum of ten years after transmission of the final OPAC billing for a site.

No other IAG closeout requirements are contained in the IAG, its Terms and Conditions, or the MOU and its Guidelines for Work.

7 Technical Process Plans

7.1 Information Technology Management Plan

7.1.1 Infrastructure Description

The Libby Asbestos Project consists of multiple servers, each performing its own specific function to support the project. The servers are all located within the continental United States. Three of the servers are maintained and operated by EPA Region 8 within the EPA network. All others are located at the field offices in Libby, Montana and are designed to support data collection activities. All referenced databases are hosted on a Microsoft Windows-based server platform. Off-the-shelf (OTS) software is used to construct, host and update the database and database server operating systems.

7.1.1.1 EPA Region 8 Servers

The following servers fall under the management of EPA Region 8, including all operational responsibility for hardware, software and security.

Libby2 Production Database Server (Denver, CO)
Operating System - Microsoft Windows/2003 Server

Database Management System - Microsoft SQL Server 2005

Libby2 GIS Server (Denver, CO)

Operating System - Microsoft Windows/2003 Server

Global Information System (GIS) Management System – ArcIMS

Libby2 Backup Server (Golden, CO)

Operating System - Microsoft Windows/2003 Server

Database Management System - Microsoft SQL Server 2005

7.1.1.2 Libby, MT Field Servers

All database servers listed in this section are used to compile, validate, backup and transmit data to the Volpe Center. In addition, standard reports are generated using the LibbyVCS server listed below.

LibbyVCS (Libby Volpe Central Server) - (Libby, MT)

Data collected on hand-held computing devices in the field is uploaded and synchronized on the LibbyVCS server. Standard reports are generated on this server.

LibbySVR1 (Libby File & Print Server) - (Libby, MT)

Data collected on hand-held computing devices and uploaded to the LibbyVCS server is backed up using LibbySVR1.

7.1.1.3 Client Processes

Libby, MT Field Processes

All processes in this section are used to aid in field data compilation activities. Once processed, data is delivered to the Volpe Center for quality review and uploading into the production database.

- eLastic
- EIC/SIIC
- Property Closeout Checklist
- GPS Field Data
- Property Tracking System

Volpe Center (Cambridge, MA) Processes

All processes listed below are used to perform quality assurance checks on data and to upload validated data into the production database.

- Libby Asbestos Data Entry Application
- EDD Load
- SurveyLoad
- COCLoad
- GISLoad

- CSFLoad
- GEOCodeLoad
- PropertyLoad
- PropertyStatusLoad
- SamplePreLoad

7.1.2 Security Plan

The Libby2 Production Database is located in Denver, Colorado. Responsibility for management of security for the production database rests with EPA region 8.

Access to the Libby2 Production Database is controlled by EPA provided SecuRemote software.

7.1.3 Documentation Plan

The Volpe Center maintains a central server for document and application storage and sharing. The most recent build (version) of an application along with the application source code and supporting documentation are stored on the server. Directories on the central server store files by file type.

The following files are stored on the Volpe Central Server:

- Application Releases
- Application Source Code
- Application Supporting Documentation
- Data Dictionary

In addition to in-house document storage, a shared repository for document storage and issue tracking is available as an “eRoom”. This shared repository is available to all individuals involved with data quality issues or the applications development process. The eRoom is found at <https://team.cdm.com/eRoom/R8-RAC/Libby>.

The Libby Project eRoom is a password-protected site used for facilitating communications between the Volpe Center, contracted staff and the Libby Field site. The eRoom is under the management of contractors (CDM), with all operational responsibility for hardware and software under the direct control of CDM.

7.1.4 Verification and Validation

The production server houses three databases, production, development, and test. The development database is available to all users of the production database as well as all development staff, and is to be used for developing new applications. The test database is used for testing, verification and validation purposes.

At the Volpe Center, applications that are used to append data into the database tables are developed using the Microsoft Visual Studio 2005 environment, or more specifically Visual Basic 6. All applications are exhaustively tested using the development database. Depending on the application, upper and lower level boundary testing for all business rules are implemented in conjunction with user functionality testing.

Weekly staff meetings are scheduled where development staff, users and management review progress and set milestones. Data issues, quality assurance, development and scheduling are managed at these regular meetings.

The applications listed above represent a complete list of automated tools that are used in the verification and validation process.

7.2 Technical Process Plans Applicable to Asbestos Removals

a. *Comprehensive Site Health and Safety Program (CSHASP), December 2006.* The CSHASP describes safety and health procedures to minimize the possibility of injury or chemical exposure to people during sampling and removal activities.

b. *Final Draft Design Analysis Report (DAR), November 2003.* The DAR describes the design analysis used to develop designs for the Libby Asbestos Project and defines design-related roles and responsibilities of Libby Asbestos Project participants.

c. *Final Draft Pre-Design Inspection Activities Work Plan (PDIWP), November 2003.* The PDIWP describes the procedures for conducting pre-design inspections of properties within the scope of the Libby Asbestos Project.

d. *Response Action Work Plan (RAWP), February 2007.* The RAWP describes the technical requirements of removal activities and defines removal-related roles of Libby Asbestos Project participants.

e. *Draft Revised Lincoln County Class IV Asbestos Landfill Operations Plan, February 2004.* The Lincoln County Class IV Asbestos Landfill was designed and constructed to dispose of asbestos-containing material generated in the course of remedial actions at Libby, MT. The plan describes procedures for landfill operation and use.

f. *Final Disposal Operations Plan for the Former W.R. Grace Mine, May 2004.* The former Grace Mine serves as a disposal location for asbestos-contaminated soil and material. The plan describes procedures for disposal operations involving the former mine.

g. *Final Sampling & Analysis Plan for Remedial Investigations (RISAP), April 2002.*

h. *Final Draft Construction Specifications for Residential Removals, April 2004.*

i. *Residential/Commercial Cleanup Action Level & Clearance Criteria, EPA Technical Memorandum, Draft Final, December 2003.*

j. *Libby SOP – Semi-Quantitative Visual Estimation of Vermiculite in Soils at Residential & Commercial Properties, October 2006.*